

REMARKS

This is in response to the Office Action dated August 7, 2008. Claims 1, 4, 6-13, 16 and 18-22 are now pending. In this Amendment, claims 1, 4, 6-13, 16 and 18-22 have been amended, and claims 5 and 17 have been canceled. No new matter has been introduced. Applicants request reconsideration of the present application in view of the foregoing amendments and the following remarks.

Allowable Subject Matter

Applicants thank the Examiner for the indication of allowable subject matter in claim 12. In light of the amendments made to the other pending claims, it is respectfully submitted that all of the pending claims are now allowable over the cited references.

Amendments to the Independent Claims

Independent claims 1, 13 and 19 have been amended to recite, *inter alia*, three distinct linear recording velocities, a high linear recording velocity, an intermediate linear recording velocity and a low linear recording velocity. The terms, high, intermediate and low, have been added to the claims to make the claims easier to follow, but they are merely relative terms and should not be understood to imply any absolute value ranges for the respective linear velocities. Claims 1 and 13 have been amended to recite “wherein in the case where data are to be recorded at a low linear recording velocity equal to or lower than the second linear recording velocity, the number of pulses is set such that a difference between the number of pulses and a number corresponding to a length of each recording mark is constant, and such that, for at least one length of a recording mark, the number of pulses set at the low linear recording velocity is greater than the number of pulses set at the intermediate linear recording velocity.” Claim 19 has been amended to recite “in the case where data are to be recorded at a low linear recording velocity equal to or lower than the second linear recording velocity, setting the number of pulses such that a difference between the number of pulses and a number corresponding to a length of each recording mark is constant and such that, for at least one length of a recording mark, the number of pulses set at the low linear recording velocity is greater than the number of pulses set

at the intermediate linear recording velocity.” Support for these amendments may be found throughout the originally filed specification, including in Figure 3.

Rejection of Claims 1, 4, 13, 16 and 19 under § 103(a)

Claims 1, 4, 13, 16 and 19 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. patent no. 6,404,713, issued to Ueki (“Ueki”) in view of U.S. patent no. 5,130,971, issued to Ohno *et al.* (“Ohno”). These rejections are respectfully traversed because Ueki, alone or in combination with Ohno, fails to teach or suggest all of the elements of amended independent claims 1, 13 and 19. *See* M.P.E.P. § 2143.03 (stating that all words in a claim must be considered in judging the patentability of that claim against the prior art).

In particular, amended independent claims 1, 13 and 19 recite, *inter alia*, three distinct linear recording velocities, a high linear recording velocity, an intermediate linear recording velocity and a low linear recording velocity. Where data are to be recorded at the high linear recording velocity, the number of pulses is set to one (1). Where data are to be recorded at the intermediate linear recording velocity, the number of pulses is set to one (1) at least when a shortest recording mark is to be formed, and the number of pulses is set larger as a length of a recording mark to be formed becomes longer. Where data are to be recorded at the low linear recording velocity, the number of pulses is set such that a difference between the number of pulses and a number corresponding to a length of each recording mark is constant, and such that, for at least one length of a recording mark, the number of pulses set at the low linear recording velocity is greater than the number of pulses set at the intermediate linear recording velocity. Neither Ueki nor Ohno discloses, teaches or suggests setting the number of pulses in accordance with these three distinct limitations for three different linear recording velocities.

The Examiner cites Figure 3 of Ueki as disclosing two waveforms, WA and WB. The Examiner suggests that the waveform WB is used for the high linear recording velocity, and the waveform WA is used for a lower linear recording velocity. *See* Office Action, p. 3. However, it is respectfully submitted that Ueki does not disclose a third waveform that might render obvious the claimed three distinct limitations for three different linear recording velocities. In particular, Ueki does not disclose that, for a low linear recording velocity, the

number of pulses might be set such that a difference between the number of pulses and a number corresponding to a length of each recording mark is constant, and such that, for at least one length of a recording mark, the number of pulses set at the low linear recording velocity is greater than the number of pulses set at the intermediate linear recording velocity. Instead, Ueki teaches one waveform, WB, for a linear recording velocity of 9.0 m/s, and one other waveform, WA, for all linear recording velocities below 9.0 m/s. See Col. 11, ll. 30-33. Ueki does not disclose, teach or suggest that the number of pulses set at a low linear recording velocity should be greater than the number of pulses set at an intermediate linear recording velocity, nor does Ohno supply this teaching.

Independent claim 13 further recites, *inter alia*, an “apparatus for recording data in an optical recording medium . . . wherein a ratio of the bottom power to the recording power is set higher as the linear recording velocity becomes higher.” (Emphasis added.) Neither Ueki nor Ohno discloses this limitation.

In the most recent Office Action, the Examiner does not even address the above limitation. It is respectfully submitted that the waveform WB of Figure 3 of Ueki includes a bottom power Pb between the recording marks, and the ratio of the bottom power Pb to the recording power Pp is shown as unchanged in both the waveforms WA and WB of Figure 3. Thus, Ueki does not disclose that a ratio of the bottom power to the recording power is set higher as the linear recording velocity becomes higher. Ohno also does not disclose this limitation. Thus, for at least this additional reason, the cited references do not render claim 13 obvious.

For the above reasons, it is respectfully submitted that independent claims 1, 13 and 19 are patentable over the cited references. Because independent claims 1 and 13 are patentable over the cited references, dependent claims 4 and 16 are also allowable at least because they include the limitations of their respective independent claims.

Rejections of Claims 6 and 18 under 35 U.S.C. § 103(a)

Claims 6 and 18 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ueki in view of Ohno, and further in view of Japanese Publication No. 10-106008, to Hideya *et al.*, (“Hideya”). The defects of the obviousness rejections over Ueki and Ohno are not cured by Hideya,

considered separately or in combination. Therefore, the rejections of claims 6 and 18 are respectfully traversed for at least the reasons set forth above.

Rejections of Claims 7 and 8 under 35 U.S.C. § 103(a)

Claims 7 and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ueki in view of Ohno, and further in view of U.S. patent no. 6,442,119, issued to Sunagawa, ("Sunagawa"). The defects of the obviousness rejections over Ueki and Ohno are not cured by Sunagawa, considered separately or in combination. Therefore, the rejections of claims 7 and 8 are respectfully traversed for at least the reasons set forth above.

Rejections of Claims 9 and 10 under 35 U.S.C. § 103(a)

Claims 9 and 10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ueki in view of Ohno, and further in view of U.S. patent no. 6,411,579, issued to Nobukuni *et al.*, ("Nobukuni"). The defects of the obviousness rejections over Ueki and Ohno are not cured by Nobukuni, considered separately or in combination. Therefore, the rejections of claims 9 and 10 are respectfully traversed for at least the reasons set forth above.

Rejections of Claims 11 and 20-22 under 35 U.S.C. § 103(a)

Claims 11 and 20-22 were rejected under 35 U.S.C. § 103(a) as unpatentable over Ueki in view of Ohno, and further in view of Japanese Publication No. 2001-101709, to Takashi *et al.*, ("Takashi"). The defects of the obviousness rejections over Ueki and Ohno are not cured by Takashi, considered separately or in combination. Therefore, the rejections of claims 11 and 20-22 are respectfully traversed for at least the reasons set forth above.

CONCLUSION

In light of the above remarks, Applicants submit that pending claims 1, 4, 6-13, 16 and 18-22 are in condition for allowance. Any remarks in support of patentability of one claim should not be imputed to any other claim, even if similar terminology is used. Any remarks referring to only a portion of a claim should not be understood to base patentability on that portion; rather, patentability must rest on each claim taken as a whole.

It is respectfully requested that the Examiner reconsider this application and timely allow all pending claims. The Examiner is encouraged to contact Mr. Evans by telephone to discuss the above and any other distinctions between the claims and the applied references, if desired. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,
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